

SECTION 4.3

PRACTICE SELECTION GUIDE

Tables 4.3a through 4.3j provide guidance in selecting appropriate practices for various activities. Practices associated with each activity are typically selected from three groups of practices:

1. Common Practices for Site Assessment and Preparation (Section 5.1)
2. Key practices associated with a particular activity (Sections 5.2 through 5.10, as applicable)
3. Revegetation and Site Stabilization practices (Section 5.11 as well as Section 5.5)

Selection of a Site Preparation/Access Practice: As indicated in earlier sections, site assessment should be the first order of business, no matter what activity or practice is being considered. Based on this site assessment and the requirements for implementing a practice, appropriate practices for access to the site as well as preparation of the site need to be selected from the list of applicable practices, as appropriate. The selection of an appropriate site preparation or site access practice from a list of alternative practices, is greatly influenced by the choice of the activity's key practice.

Selection of a Key Practice for a Specific Activity: To assist in the selection process, the key practices for each activity have been sub-grouped for their applicability with regards to general site conditions. However, pertinent information for each alternative key practice, provided in Section 5, should be carefully reviewed to determine its appropriateness for the site. Careful consideration should be given to factors described in Section 4.2 before an alternative key practice is selected to perform an activity.

Selection of a Final Site Stabilization Practice: Once the preparatory practice(s) and the activity's key practice(s) are chosen, an appropriate practice must be chosen from the "Revegetation and Site Stabilization" group for final site stabilization. Many of practices grouped under "Eroded Streambank Repair" category (Section 5.5) may also be suitable as a final stabilization practice.

Occasionally and depending on the project, appropriate practices from two other categories may have to be selected as well. These categories include: Mitigation Measures (Section 5.12) and Other Practices (Section 5.13).

Mitigation Measures: Mitigation measures (Section 5.12) must be considered if an activity is expected to cause an unreasonably detrimental impact on the environment. As indicated earlier in Section 3.4, every efforts should be made to avoid or minimize adverse environmental impacts. However, total avoidance of adverse impacts may not always be practical, thus making the mitigation the only feasible alternative when such impacts are judged to have an unreasonably detrimental impact on environment.

Other Practices: An appropriate practice from the "Other Related Practices" group (Section 5.13) may be selected for providing permanent livestock or maintenance access and where debris cleared from a stream or ditch is to be stored within the floodplain.

Last Print/Revision Date: October 1999

**Table 4.3a
Practice Selection Guide for Tile Installation and Repair Activities**

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Tile Installation	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103)
	Any	Tile Installation: Tile Drain Installation (P201) Breather Pipe (P203) Tile Drain Inlet (P204)
		Mitigation Measure (if appropriate/required): Wetland Replacement (P1201)
		Outlet Protection: Tile Drain Outlet Extension (P1001) Riprap-Lined Apron (P1002)
Tile Repair and Replacement	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103)
	Any	Tile Repair and Replacement: Tile Drain Repair/Replacement (P202) Breather Pipe (P203) Tile Drain Inlet (P204)
		Mitigation Measure (if appropriate/required): Wetland Replacement (P1201)
		Outlet Protection: Tile Drain Outlet Extension (P1001) Riprap-Lined Apron (P1002)

Last Print/Revision Date: October 13, 1996

Table 4.3b
Practice Selection Guide for Debrushing and Logjam Removal/River Restoration Activities

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Debrushing	Any (Sites with no prior Maintenance Access)	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103)
	Vegetation with No Trees or Stumps	Debrushing: Chemical Vegetation Control (P301) Debrushing Using Hand-held Tools (P302) Debrushing Using Heavy Machinery (P303)
	Establ. Vegetation with Trees or Stumps	Debrushing: Debrushing Using Hand-held Tools (P302) Debrushing Using Heavy Machinery (P303) Stump Removal (P304)
	Any (Sites with no prior Maintenance Access)	Other Related Practices: Permanent Maintenance Access (P1303)
Logjam Removal and River Restoration	Any (Sites with no prior Maintenance Access)	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103)
	Individual Logjams Types I, II, and V (See Section 5.4)	Logjam Removal: Logjam Rem. Using Hand-held Tools (P401) Logjam Rem. Using Heavy Machinery (P402)
	Individual Logjams Types III and IV (See Section 5.4)	Logjam Removal: Logjam Rem. Using Heavy Machinery (P402)
	Stream Reach has Numerous Snags, Logjams, & Leaning Trees	Logjam Removal/River Restoration: Logjam Rem. Using Heavy Machinery (P402) Large-Scale River Restoration (P403)
	All methods	Other Related Practices: Debris Disposal (P1301) Permanent Maintenance Access (P1303)

Last Print/Revision Date: October 13, 1996

Table 4.3c

Practice Selection Guide for Eroded Streambank Repair Activities

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Eroded Streambank Repair	Any	<p>Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)</p>
	Design Channel Velocity < 6 ft/sec	<p>Vegetative Streambank Stabilization: Live Stakes (P501) Live Fascines (P502) Branch Packings (P503) Tree Revetments (P504) Brush Mattress (P505) Vegetative Geogrids (P506)</p> <p>Structural Streambank Stabilization: Stone Riprap (P510) Concrete Retaining Wall (P511) Gabion Retaining Wall (P512) Timber Retaining Wall (P513) Sheetpile Retaining Wall (P514) Composite Retaining Wall (P515)</p> <p>Combination Streambank Stabilization: Live Cribwalls (P507) Lunkers (P508) A-Jacks (P509) Other Combination Protective Measures</p>
	Design Channel Velocity > 6 ft/sec	<p>Structural Streambank Stabilization: Stone Riprap (P510) Concrete Retaining Wall (P511) Gabion Retaining Wall (P512) Timber Retaining Wall (P513) Sheetpile Retaining Wall (P514) Composite Retaining Wall (P515)</p> <p>Combination Streambank Stabilization: Live Cribwalls (P507) Lunkers (P508) A-Jacks (P509) Other Combination Protective Measures</p>
	Any (If overbanks are disturbed)	<p>Revegetation and Site Stabilization: Mulching (P1101) Vegetative Stabilization and Seeding(P1102) Bonded Fiber Matrix (P1103) Erosion Control Blankets and Matting (P1104)</p>
	Any	<p>Other Related Practices: Debris Disposal (P1301) Permanent Maintenance Access (P1303)</p>

Last Print/Revision Date: October 13, 1996

**Table 4.3d
Practice Selection Guide for Channel Excavation/Dredging Activities**

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Channel Excavation/ Dredging	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)
	Any	Channel Excavation Practices: Channel Bottom Dipping (P601) Channel Bank Excavation (P602) Channel Overbank Excavation (P603)
	Any	Revegetation and Site Stabilization: Mulching (P1101) Vegetative Stabilization (P1102) Bonded Fiber Matrix (P1103) Erosion Control Blankets and Matting (P1104) Eroded Streambank Repair Methods (P501-15)
	Any	Mitigation Measure (if appropriate/required): Wetland Replacement (P1201) Stream Environmental Enhancement (P1202) Log Check Dams (P1203) Tree Replacement (P1204)
	Any	Other Related Practices: Debris Disposal (P1301) Permanent Livestock Access (P1302) Permanent Maintenance Access (P1303)

Last Print/Revision Date: October 13, 1996

Table 4.3e
Practice Selection Guide for Channel Reconstruction/Maintenance Activities

<u>ACTIVITY</u>	<u>SITE CONDITIONS</u>	<u>APPLICABLE PRACTICES</u>
Restoration of Channel to As-built Conditions	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)
	Any	Channel Excavation: Channel Bottom Dipping (P601) Channel Bank Excavation (P602)
	Any	Revegetation and Site Stabilization: (Use the same material as original) Mulching (P1101) Vegetative Stabilization (P1102) Bonded Fiber Matrix (P1103) Erosion Control Blankets and Matting (P1104) Eroded Streambank Repair Methods (P501-15)

Last Print/Revision Date: October 13, 1996

Table 4.3f
Practice Selection Guide for New Channel Construction/Relocation Activities

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Ditch Relocation/Construction and Transitions	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)
	Slopes <5%	Channel Construction: Channel with Grass Lining (P701) Channel with Riprap Lining (P702) Channel with Concrete Lining (P703) Channel Transitions (P704)
	Slopes >5%	Channel Construction: Channel with Riprap Lining (P702) Channel with Concrete Lining (P703) Channel Transitions (P704) Grade Transitions (Chutes) (P705) In-Channel Grade Stabilization Structure (P706)
	Any	Revegetation and Site Stabilization: Mulching (P1101) Vegetative Stabilization (P1102) Bonded Fiber Matrix (P1103) Erosion Control Blankets and Matting (P1104) Eroded Streambank Repair Methods (P501-15)
	Any	Mitigation Measure (if appropriate/required): Wetland Replacement (P1201) Stream Environmental Enhancement (P1202) Log Check Dams (P1203) Tree Replacement (P1204)
	Any	Other Related Practices: Debris Disposal (P1301) Permanent Livestock Access (P1302) Permanent Maintenance Access (P1303)

Last Print/Revision Date: October 13, 1996

**Table 4.3g
Practice Selection Guide for Sediment Control Activities**

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Sediment Control	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)
	Any	Sediment Control Measures: In-channel Sediment Basin (P801) Hydraulic Dredging (P803) Vegetative Filter Strip (P804)
	Any	Mitigation Measure (if appropriate/required): Wetland Replacement (P1201) Stream Environmental Enhancement (P1202) Log Check Dams (P1203) Tree Replacement (P1204)
	Any	Other Related Practices: Debris Disposal (P1301) Permanent Livestock Access (P1302) Permanent Maintenance Access (P1303)

Last Print/Revision Date: October 13, 1996

**Table 4.3h
Practice Selection Guide for Floodwater Retention Activities**

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Floodwater Retention	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)
	Any	Floodwater Retention: In-channel Floodwater Retention Basin (P802)
	Any	Revegetation and Site Stabilization: Mulching (P1101) Vegetative Stabilization (P1102) Bonded Fiber Matrix (P1103) Erosion Control Blankets and Matting (P1104) Eroded Streambank Repair Methods (P501-15)
	Any	Mitigation Measure (if appropriate/required): Wetland Replacement (P1201) Stream Environmental Enhancement (P1202) Log Check Dams (P1203) Tree Replacement (P1204)
	Any	Other Related Practices: Debris Disposal (P1301) Permanent Livestock Access (P1302) Permanent Maintenance Access (P1303)

Last Print/Revision Date: October 13, 1996

Table 4.3i
Practice Selection Guide for Stream Enclosure/Crossing Construction and Repair Activities

<u>ACTIVITY</u>	<u>SITE CONDITIONS</u>	<u>APPLICABLE PRACTICES</u>
Stream Crossing Construction and Repair	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)
	All Weather Access Required	Stream Enclosure/Crossing: Culverts (P901) Bridges (P902)
	All Weather Access <u>Not</u> Required	Stream Enclosure/Crossing: Culverts (P901) Bridges (P902) Fords/Low Water Crossings (P903)
	Any	Revegetation and Site Stabilization: Mulching (P1101) Vegetative Stabilization (P1102) Bonded Fiber Matrix (P1103) Erosion Control Blankets and Matting (P1104)

Last Print/Revision Date: October 13, 1996

Table 4.3j
Practice Selection Guide for Outlet Protection Activities

ACTIVITY	SITE CONDITIONS	APPLICABLE PRACTICES
Outlet Protection	Any	Site Assessment/Preparation/Access: Site Assessment (P101) Tree Preservation & Protection (P102) Temporary Wetland Crossing (P103) Temporary Diversion (P104) Silt Fencing (P105) Straw Bale Filter (P106) Clearing and Grubbing (P107)
	Small Tile Drain or Stormwater outfall	Outlet Protection: Tile Drain Outlet Extension (P1001)
	High velocity outlet of a culvert or channel	Outlet Protection: Riprap-Lined Apron (P1002)
	High velocity outlet and significant grade drop	Ditch Relocation/Const. and Transitions: Grade Transitions (Chutes) (P705) In-Channel Grade Stabilization Structure (P706)
	Any	Revegetation and Site Stabilization: Mulching (P1101) Vegetative Stabilization (P1102) Bonded Fiber Matrix (P1103) Erosion Control Blankets and Matting (P1104)

Last Print/Revision Date: October 13, 1996